TINNEMANS ET AL. - Application No. 10/813,687

Attorney Docket: 081468-0308853

REMARKS

By this amendment, claims 11-14, 19-20 and 22, which were previously withdrawn, have been cancelled. Currently, claims 1, 3-8, 10, 15-18, 21 and 23-27 are pending. Reconsideration and timely allowance of the pending claims, in view of the above amendments and following remarks, are requested.

Entry of this Amendment is proper under 37 C.F.R. §1.116 as the amendments:
(a) place the application in condition for allowance for the reasons discussed herein; (b) do not present any new issues that would require further consideration and/or search as the amendments merely amplify issues discussed throughout the prosecution; (c) do not present any additional claims without canceling a corresponding number of claims; and (d) place the application in better form for appeal, should an appeal be necessary. Entry of this Amendment is thus respectfully requested.

Claims 3-4, 7 and 16-17 have been objected to as being dependent upon a rejected based claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants maintain their objections to the Examiner's reasons for allowable subject matter in this application. Applicants respectfully submit that the allowable claims are patentable for their respective recitations of claimed combinations as a whole, without any particular criticality or distinguishing feature being attributable to any one or more of such features, and without any narrowing interpretation being imposed on any of such features. As such, Applicants respectfully submit that no one element or limitation in particular should be deemed to impart to or be required for patentability of the claims. For example, claim 3 recites the aspects of the robot arm comprises a robot arm having a support frame for holding the object in addition to the aspects recited in independent claim 1. Thus, claim 3-4, 7 and 16-17 are allowable at least by virtue of their dependency from an allowable base claim, and for the additional aspects recited in these claims.

Claims 1, 5-10, 15 and 26-27 stand rejected under 35 U.S.C. §102(e) as being allegedly anticipated by U.S. Patent No. 6,828,772 B1 to Hofer *et al.* ("Hofer"). Claims 1, 5-6, 8, 10, 15, 18, 21 and 23-27 stand rejected under 35 U.S.C. §102(b) as being allegedly anticipated by U.S. Patent No. 6,404,483 to Segers *et al.* ("Segers"). Applicants respectfully traverse the prior art rejections, under 35 U.S.C. §102(e) and §102(b) for the following reasons.

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A patent claim is anticipated by a prior art reference if the prior art reference discloses, either expressly or inherently, all of the limitations of the claim. Neither the cited portions of Hofer nor those of Segers disclose all the aspects of the claims. For example, neither the cited portions of Hofer nor those of Segers disclose a lithographic support system comprising, inter alia, a compliant structure configured to compensate for at least one of a tilt and displacement between the object and the clamp, the compliant structure being provided at least between the rod and the support frame, as recited in claim 1.

Hofer discloses a hollow flipper shaft 20 and a mounting head 90 which "locks the flipper shaft 20 to the wafer holding structure 10." See, column 6, lines 30-33 of Hofer. In particular, the cited portions of Hofer disclose a wedge assembly 50 including a rubber material to frictionally engage and hold the wafer within the holding structure 10. See, column 6, lines 9-11 of Hofer.

Segers discloses a pick-up hand 133 that is provided on the end of arm 131, and further discusses two fingers 134 which are inserted underneath a wafer w, to pick-up the wafer w. The pick-up hand 133 carries coupling half 135a, which mates with a corresponding coupling half 135(b), on the pre-aligner 2. The coupling (135a, 135b) is used to ensure that the pick-up hand 133 is accurately positioned relative to the pre-aligner 2 when the wafer w is picked up. See, column 7, lines 6-18 and Figs. 5a-5c of Segers.

The Office Action alleges that the recited compliant structure that is configured to compensate for at least one of a tilt and displacement between the object and the clamp is analogous to the wedge assembly 50 of Hofer and the coupling half 135a of Segers. Respectfully, the Final Action is utterly incorrect on both assertions. It is respectfully submitted that there is nothing in either Hofer or Segers that remotely discloses, teaches or suggests each and every limitation of claim 1, including the features identified above. Applicants wish to remind the Examiner that "the identical invention must be shown in as complete detail as is contained in the ... claim." (See MPEP §2131, citing Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989), emphasis added). MPEP §2131 also indicates that "the elements must be arranged as required by the claim." (See MPEP §2131, citing In re Bond, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990), emphasis added). The Office Action does not meet these requirements.

As discussed above, the recited compliant structure is configured to compensate for at least one of a tilt and displacement between the object and the clamp. This is in contrast to the wedge assembly 50 of Hofer that is used frictionally to hold the wafer within the holding structure 10. There is nothing within the cited portions of Hofer to disclose that the wedge

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assembly is configured to perform this function. In particular, the Final Action alleges that the semiconductor wafer/object 40 is forced upward along an incline area on the wedge assemblies 50, 55 and thus one of the functions of the wedge assemblies 50, 55 is to secure the wafer and to neutralize the effect of variations, such as displacement, between the wafer/object 40 and the clamp 60. The Final Action cites column 6, lines 2-24 of Hofer for support. [Final Action, page 3]. Applicants respectfully disagree.

The cited portions of Hofer disclose the wafer holding structure 10 that includes two gripper arms 60 that are pulled together by tension springs 70. When the wafer is held by the holding structure 10, the wafer is forced upward along an incline area on the wedge assemblies 50, 55 into the wedge slots on the wedge assemblies 50, 55. The pressure of the gripper arm 60 provided by the tension springs 70 and the slots in the wedge assemblies 50, 55 work together to secure the wafer within the wafer holding structure 10. In other words, if the gripper arms 60 of the wafer holding structure 10 is moved while the wafer is being held, the wafer would move or fall through the holding structure 10. Thus, there is nothing within the cited portions of Hofer to compensate for at least one of a tilt and displacement between the object and the clamp as presently claimed.

Furthermore, there is nothing within the cited portions of Segers to disclose that Seger's two-part arm 131 with the pick-up hand 133 and coupling half 135a is configured to compensate for at least one of a tilt and displacement between the object and the clamp as recited in the claims. The coupling half 135a of Segers is configured to mate with corresponding coupling half 135b on the pre-aligner 2 to ensure that the pick-up hand 133 is accurately positioned relative to the pre-aligner 2 when the wafer W is picked up. In fact, the cited portions of Segers teaches that the connection between the pick-up hand 133 and the arm 131 is configured to allow a certain amount of movement between them. Thus, Segers does not disclose any form of compensation between the pick-up hand 133 and the arm 131.

Therefore, the cited portions of Hofer and Segers fail to anticipate claim 1 at least because they fail to disclose all the features of claim 1. Claims 3-8, 10 and 23-25 are patentable over Hofer and Segers at least by virtue of their dependency from claim 1, and for the additional features recited therein.

Furthermore, because independent claims 15, 18, 21 and 26 recite similar patentable features as noted above, with respect to claim 1, claims 15, 18, 21 and 26 are also patentable for at least the reasons submitted relative to claim 1. Additionally, because claims 16-17 depend from claim 15 and claim 27 depends from 26, claims 16-17 and 27 are also patentable by virtue of dependency as well as for their additional recitations.

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Still further, the Final Action alleges that the dependent claims have not been separately argued. Applicants respectfully disagree. The dependent claims have been and are currently argued in this paper as being allowable at least by virtue of their dependency on an allowable base claim, and for the additional aspects they recite.

All matters having been addressed and in view of the foregoing, applicants respectfully request the entry of this Amendment, the Examiner's reconsideration of this application and immediate allowance of all pending claims.

Applicants counsel remains ready to assist the Examiner in any way to facilitate and expedite the prosecution of this matter. If any point remains this an issue which the Examiner feels may be best resolved through a personal or telephone interview, please contact the undersigned at the telephone number listed below.

Please charge any fees associated with the submission of this paper to Deposit Account Number 033975, under order number 081468-0308853.

The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,

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